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Discussion on the special theme for the year: "Indigenous peoples: development with culture and identity: articles 3 and 32 of the United Nations Declaration on the Rights of Indigenous Peoples"

Future Work of the Permanent Forum, including issues of the Economic and Social Council and emerging issues

Study on the impact of climate change adaptation and mitigation measures on reindeer herding

Submitted by the Special Rapporteur

Summary

At its eighth session, in May 2009, the Permanent Forum appointed Lars-Anders Baer, member of the Permanent Forum, as Special Rapporteur to prepare a study on the impact of climate change adaptation and mitigation measures on reindeer herding and requested that the report be submitted to the Permanent Forum at its ninth session, in April 2010.

The present report is a synthesis of a more extended paper.

* E/C.19/2010/1.

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I. Introduction

1. At its eighth session, held from 18 to 29 May 2009, the Permanent Forum on Indigenous Issues convened a half-day discussion on the Arctic. Based on the discussion, the Permanent Forum adopted several recommendations (see E/2009/43) on the Arctic and climate change. Climate change has an impact on all aspects of life in the Arctic region, from traditional subsistence activities, including hunting, fishing, reindeer husbandry, farming, gathering and food sovereignty, to community health. It has also been emphasized that climate change and environmental degradation related to natural resource extraction, such as mining and forestry, already constitute great threats to the traditional lifestyles and cultures of indigenous peoples of the Arctic.

2. Discussions held at Permanent Forum sessions and in the various Convention on Biological Diversity frameworks, as well as with United Nations agencies, such as the International Fund for Agriculture Development (IFAD),[1] the Food and Agriculture Organization of the United Nations (FAO),[2] the United Nations Development Programme (UNDP),[3] the United Nations Environment Programme (UNEP)[4] and the United Nations Education, Scientific and Cultural Organization (UNESCO)[5] have recently considered some of the challenges faced by pastoralists, in an effort to improve working relations with different communities of pastoralists, mainly in Africa and Asia.

II. International framework

3. Animal herding (pastoralism) is a subsistence strategy that is practised by peoples and populations of low-producing ecosystems worldwide. It has been estimated that pastoralism is practised on 25 per cent of the global land area, providing 10 per cent of the world's meat production. In the Arctic, reindeer is the primary livestock production. It is slowly vanishing due to land pressure, ecological degradation and climate change, particularly in the developing countries. Due to dynamic developments in international law regarding indigenous peoples in the recent decade, specific challenges and problems faced by the indigenous pastoralists have been partly addressed in national, regional and international standard settings.

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[1] International Fund for Agricultural Development, *Engagement with Indigenous Peoples*. Available from www.ifad.org/operations/policy/policydocs.htm. Accessed on 20 January 2010.

[2] Food and Agriculture Organization of the United Nations, "Pastoralism in the new millennium". Available from www.fao.org/docrep/005/Y2647E/y2647e13.htm. Accessed on 20 January 2010.

[3] United Nations Development Group, *United Nations Development Group Guidelines on Indigenous Peoples Issues*. Available from www.undp.org/partners/civil_society/publications/UNDG. Accessed on 20 January 2010.

[4] United Nations Environment Programme and European Environment Agency, *Arctic Environment: European Perspective: Why Should Europe Care?* Environmental issue report No. 38 (Copenhagen, European Environment Agency, 2004).

[5] Joji Carino, "Poverty and Well-being", in *State of the World's Indigenous Peoples* (United Nations publication, Sales No. 09.VI.13).

A. United Nations Declaration on the Rights of Indigenous Peoples

4. The Declaration includes several articles of relevance to the rights of indigenous pastoralists to natural resources. The Declaration also expresses more specific rules on rights to natural resources. Art. 26 (2) establishes the right of indigenous peoples to own, use, develop and control "lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use". For indigenous peoples, many of whom are pastoralists, article 36 has special relevance:

> 1. Indigenous peoples, in particular those divided by international borders, have the right to maintain and develop contacts, relations and cooperation, including activities for spiritual, cultural, political, economic and social purposes, with their own members as well as other peoples across borders.
>
> 2. States, in consultation and cooperation with indigenous peoples, shall take effective measures to facilitate the exercise and ensure the implementation of this right.

B. Article 27, International Covenant on Civil and Political Rights

5. Article 27 is the core clause in the International Covenant on Civil and Political Rights concerning minorities and reads as follows:

> In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language.

6. The Covenant has repeatedly been interpreted such that, especially in the case of indigenous peoples, "culture" covers traditional or otherwise typical means of subsistence that are based on the land and its resources. If this concept is understood to include the material, namely, economic and physical, bases of the culture of an ethnic minority, then the provision will encompass the use of resources and rights to land and water, such as reindeer herding.[6] For many indigenous pastoralists it is indeed the material basis of the culture concerned.

7. Article 27[7] promotes the rights of individuals, at the same time taking into account the collective dimension of these rights (in community with the other members of their group). Article 1 of the Covenant on peoples' right to

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[6] See for example *Bernard Ominayak, Chief of the Lubicon Lake Band vs. Canada*, Report of the Human Rights Committee, A/45/40, vol. II; *Kitok vs. Sweden*, A/43/40; and *I. Länsman et al vs. Finland* (Communication No. 511/1992), CCPR/C/52/511/1992; General Comment No. 23 (article 27), adopted by the Human Rights Committee at its 1314th meeting (fifteenth session); and concluding observations of the Human Rights Committee: Australia 28/07/2000, CCPR/CO/69/AUS. (Concluding Observations/Comments), paras. 10 and 11. See Inter-American Commission on Human Rights, Report on the situation of the Nicaraguan population of Miskito origin, OEA/Ser. L/V/II.62, doc. 10 rev. 3, at 76-78, 81 (1983).

[7] See Mattias Åhrén, Martin Scheinin, John B. Henriksen, The Nordic Saami convention: international human rights, self-determination and other central provisions, *Journal of Indigenous Peoples Rights*, No. 3/2007.

self-determination,[8] in turn, states that the right is a purely collective one, which, according to the interpretation of the Human Rights Committee, cannot as such be an object of an individual's complaint, although it can affect the interpretation of decisions made by the Committee on the complaints of individuals based on the rights safeguarded by the Covenant.

8. As an example, the Human Rights Committee has expressed its concern about de facto discrimination against the Saami in Sweden in legal disputes, since the burden of proof for land ownership has been placed wholly on Saami claimants. The Committee also notes that, although legal aid may be granted to individuals who are parties in civil disputes, no such possibility exists for Saami villages, which are the only legal entities empowered to act as litigants in land disputes in respect of Saami lands and grazing rights (articles 1, 2, 14, 26 and 27 of the Covenant). It recommended in this context:

> The State party should grant adequate legal aid to Saami villages in court disputes concerning land and grazing rights and introduce legislation providing for a flexible burden of proof in cases regarding Saami land and grazing rights, especially where other parties possess relevant information. The State party is also encouraged to consider other means of settling land disputes, such as mediation.[9]

9. In Norway, the Saami reindeer herding communities also faced the same problem, but in the 1990s the Norwegian Parliament made an adjustment in the reindeer herding legislation and balanced the burden of proof concerning reindeer grazing disputes and between landowners and the reindeer herding communities. Moreover, the Government of Norway has also guaranteed legal aid to the reindeer herding communities in the event of disputes in court.

C. Jurisprudence: *Taxed Lapp Mountain* case

10. In Sweden, the Supreme Court Case NJA 1981 s[10] acknowledged that Saami traditional land use, namely, fishing, hunting and reindeer herding, could give rise to legal title, which was confirmed by the Swedish Supreme Court in the *Taxed Lapp Mountain* case. The Saami villages (Samebyar) in the southern part of the traditional Saami territory on the Swedish side claimed ownership right to their traditional land. In the case, the Swedish crown made the claim that the traditional Saami territory was "terra nullius". The *Taxed Lapp Mountain* case is comparable to the *Mabo* case in Australia. Even though the Supreme Court found in favour of the Swedish Government, it made some important remarks in support of the Saami cause. First, the Supreme Court stated that the Saami people's right to pursue reindeer husbandry on its traditional land was a usufruct right not depending on legislation, which the Government had claimed. Secondly, the Supreme Court noted

[8] See John B. Henriksen, "Sámi self-determination: scope and implementation". *Journal of Indigenous Peoples Rights*, No. 2/2008.

[9] The Committee considered the sixth periodic report of Sweden (CCPR/C/SWE/6) at its 2612th and 2613th meetings (CCPR/C/SR.2612 and 2613), held on 25 March 2009, and adopted this concluding observation, among others, at its 2625th meeting (CCPR/C/SR.2625), held on 2 April 2009.

[10] See NJA 1981 s 1.

that it was likely that the Saami people had ownership rights to other parts of its traditional land, in particular further north in traditional Saami territory.[11]

D. International Labour Organization Convention No. 169

11. International Labour Organization (ILO) Convention No. 169 concerning indigenous and tribal peoples in independent countries includes several provisions relevant to indigenous pastoral people's rights. Article 32 has a special relevance for many pastoralists in Africa and Northern Europe:

> Governments shall take appropriate measures, including by means of international agreements, to facilitate contacts and cooperation between indigenous and tribal peoples across borders, including activities in the economic, social, cultural, spiritual and environmental fields.

12. Among the 20 countries that have ratified ILO Convention No. 169, only two countries have pastoralist communities, namely, Nepal and Norway. In Norway, the reindeer legislation has been adjusted concerning adequate legal aid to reindeer herders in court disputes and introduces legislation providing for a flexible burden of proof in cases regarding Saami land and grazing rights.

E. Regional framework

13. The European Convention on Human Rights focuses on the protection of private and family life. Article 8 of the Convention also provides a legal basis for claims that arise from the present conditions of indigenous peoples and concerns the safeguarding of a distinct way of life and its material basis. One case against Sweden concerning Saami rights was declared admissible in 2009 before the European Court of Human Rights (*Handölsdalen Saami village and Others vs. Sweden*, application No.: 39013/04), following the findings of the Swedish courts that five Saami villages in Härjedalen in northern Sweden had no existing right to reindeer grazing on properties belonging to 571 private landowners. The applicants claimed that their right to winter grazing — constituting a possession within the meaning of article 1 of Protocol 1 of the Convention — had been violated.

[11] Another unique judicial case in Sweden concerns the transfer of Saami traditional land to a Government-owned energy company. The company applied to be registered as the owner of three separate land areas within traditional Saami territory. In all three cases, the Saami parties concerned challenged the application, arguing that the company could not be registered as the owner since it had not been sufficiently demonstrated that the land belonged to the State in the first place. In June 2000, a Swedish Court of Appeals held that the energy company could be registered as the owner, more or less indirectly arguing that it would not be reasonable for Sweden's largest water dam to be situated on Saami traditional land. A comparison can be made with a recent ruling in the part of Saami territory that is today Norway. In the so-called *Svartskog* case in 2001, the Norwegian Supreme Court tried to determine the rightful owners of the Manndalen valley in Nord-Troms County: the local Saami community or the State. The Supreme Court found in favour of the Saami parties, holding that the Saami community had acquired ownership to the land through collective utilization since time immemorial.

14. The Russian State Duma approved Protocol 14 to the European Convention on Human Rights on 15 January 2010.[12] This is a significant decision by the State Duma and will be of importance for the whole of Europe. The Protocol will help the European Court of Human Rights to deal with its backlog of cases and to reinforce its vital role in defending the human rights of individual citizens throughout Europe. The approval of the ratification is a part of the modernization of the Russian judicial system and will also address the rights of indigenous peoples in general, including pastoral indigenous peoples.

15. The Framework Convention for the Protection of National Minorities also addresses matters related to indigenous peoples as minorities. A recent example concerns the issue[13] of disputes over land rights in the Saami homeland in Finland, which have become increasingly acute owing to persistent delays in finding solutions to the open issues despite recent efforts to introduce pertinent legislation.

16. The accession agreement governing the entry of Finland and Sweden into the European Union in 1995 contains Protocol No. 3.[14] For Sweden, Protocol No. 3 was necessary to preserve reindeer husbandry as a sole right of the Saami. For Finland, Protocol No. 3 was not a necessity. The fact that Finland still became a party to Protocol No. 3 could therefore be viewed as a sign of Finland's intention to render reindeer husbandry a sole right of the Saami sometime in the future. Protocol No. 3 grants Finland and Sweden an exception from the European Union (EU) competition rules for the purposes of protecting Saami reindeer husbandry.

17. Arctic indigenous peoples in EU are protected by special provisions under European Community Law.[14] A key principle of the joint statement on EU development policy[15] is the full participation and free, informed consent of indigenous peoples. EU regional policy and cross-border programmes also benefit indigenous peoples, whose organizations participate in the Northern Dimension policy. The rights of indigenous peoples are a thematic priority under the European Initiative for Democracy and Human Rights. In the EU Arctic policy, climate change is a focus, and this was communicated to relevant EU bodies on 11 November 2008.[16] EU committees engage with Arctic indigenous peoples in a regular dialogue and support in particular the organizations and activities of the Saami and of other peoples of the European Arctic, inter alia, under regional and cross-border programmes, and promote Northern European know-how in reindeer husbandry.

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[12] Protocol No. 14 to the Convention for the Protection of Human Rights and Fundamental Freedoms, amending the control system of the Convention. Available from www.coe.int/NewsSearch/Default.asp?p=nwz&id=12714&lmLangue=1. Accessed on 20 January 2010.

[13] Resolution CM/ResCMN(2007)1 on the implementation of the Framework Convention for the Protection of National Minorities by Finland (Adopted by the Committee of Ministers on 31 January 2007, at the 985th meeting of the Ministers' Deputies).

[14] Act concerning the Conditions of Accession of the Republic of Austria, the Republic of Finland and the Kingdom of Sweden to the European Union, as amended. Protocol No. 3 on the Saami People.

[15] Adopted by the European Council, the European Parliament and the Commission on European Development Policy.

[16] "The European Union and the Arctic region". Communication from the European Commission to the European Parliament and the European Council in Brussels on 20 November 2008.

III. Reindeer pastoralism: subsistence strategy[17]

18. Reindeer pastoralism, ancient in origin in all its forms, represents models in the sustainable exploitation and management of northern terrestrial ecosystems that are based on generations of experience accumulated, conserved, developed and adapted to the climatic and political/economic systems of the North. Reindeers have major cultural and economic significance for indigenous peoples of the North. The human ecological systems in the North, like reindeer pastoralism, are sensitive to climate change, perhaps more than in virtually any other region of the globe, owing in part to the variability of the Arctic climate and the characteristic ways of life of indigenous Arctic peoples. Understanding and measuring vulnerability requires assessment of the ability of systems to adapt to impact and the extent to which the freedom to adapt is constrained.

19. Circumpolar reindeer husbandry has a long history in the North. Reindeer husbandry is practised in Norway, Sweden, Finland, the Russian Federation, Mongolia, China, Alaska, Canada and Greenland. It involves some 100,000 herders and 2.5 million semi-domesticated reindeers. There are over 20 indigenous peoples involved in reindeer husbandry today. World reindeer herders, owing to their experience, traditional knowledge and skills, have developed unique management strategies, including for the protection of pastures and for the observation of changes in and the rational use of natural resources, which should be recognized and supported.

20. Archaeological remains and cave paintings in France and Spain from the end of the Pleistocene, 11,000 to 17,000 years ago, have led some to call that period the "Age of the reindeer". Today in the Arctic, the "Age of the reindeer (*Rangifer tarandus*) continues. There are as many as 3 million wild and 2 million domesticated reindeer around the North, and for many indigenous peoples, reindeer are their cultural, economic, social and spiritual foundation.

21. The domestication of wild reindeer is a process that defies easy explanation. Certainly, people followed migrating reindeer as the ice retreated northward and used decoys to hunt them. Some archaeological evidence (cave paintings) seems to suggest that domestication emerged from the Sayan mountains between the Russian Federation and Mongolia, perhaps 2,000 to 3,000 years ago. Another theory holds that Tungus (the ancestors of today's Evenki and Eveny) domesticated reindeer independently in the east of Lake Baikal, and that instead of a single site origin, reindeer husbandry originated in multiple sites simultaneously. New evidence is continually backdating this relationship. Reindeer peoples have their own stories and theories about domestication and the relationship between wild and domestic reindeer.

22. The 1600s were said to mark a transformation of indigenous reindeer economies as competing nation States began a process of colonizing indigenous peoples, encroaching on their lands and utilizing their resources. For some, this represented an opportunity — and herds grew to feed growing markets. Russian expansion into the vastness of Siberia in search of fur was enabled by reindeer — for both food and transportation. The late nineteenth and early twentieth centuries

[17] Based on Anders Oskal, Johan Mathis Turi, Svein D. Mathisen and Philip Burgess, eds., *Ealát, Reindeer Herders' Voice: Reindeer Herding, Traditional Knowledge and Adaptation to Climate Change and Loss of Grazing Lands* (2009).

saw the expansion of reindeer husbandry into North America as attempts were made to graft Saami reindeer husbandry onto the Inupiat and Yupik peoples of the Seward peninsula, Alaska and later the McKenzie Delta in northern Canada. In the 1950s, a similar venture was attempted in Greenland. Although of mixed success, these experiments have persisted to this day.

IV. Overview of reindeer herding peoples[17]

23. Today, we can broadly differentiate between tundra and taiga reindeer husbandry. "Tundra" refers to long migrations in the summer to coastal or mountain areas in order to flee insects and to access better pastures. Winter marks a return inland to shelter, a more stable climate and a change in diet. Herds tend to be large, up to several thousand reindeer, and migration routes are long, often hundreds of kilometres. Meat production is mainly practised by the Saami, Nenets, Komi, Eveny, Chukchi and Koryak. Taiga reindeer husbandry, practised by the Chuvans, Evenki, Eveny, Khets, Khanty, Mansi, Enets, Dolgans, Negidals, Tofalars, Soyots, Tozha-Tuvans, Dukhas/Tsataans, Uil'ta and Yukagir, is geographically widespread, is characterized by smaller herds, by the animals being ridden and by much shorter migration routes in forested or mountainous areas. Animals are primarily used for transportation and milk production. In tundra and taiga reindeer husbandry, reindeer provide food, clothing, shelter and transportation. The production of handicrafts is increasingly important for reindeer peoples and there is a relatively new market for soft antlers (for pantocrine) in the Far East.

A. Russian Federation

24. About two thirds of the world's reindeer husbandry can be found within the Russian Federation today, and it is the only nation that has all the different ethnic groups of indigenous reindeer herders within its borders. Reindeer herding is practised in 20 regions of the Russian Federation. The main reindeer herding regions include Yamal, Nenets, Sakha (Yakutia) and Chukotka. In the Russian Federation, tundra reindeer herding is dominating in size. The Nenets peoples form the largest indigenous group of the Russian North and are one of the world's great reindeer herding peoples who have come to personify large-scale tundra reindeer husbandry. The bulk of Nenets reindeer husbandry is situated on the Yamal peninsula, which is the world's largest area of reindeer husbandry.

25. Reindeer are central to the social, cultural, spiritual and economic life of the reindeer herding peoples in the Russian Federation. Reindeer are used for meat production, traditional handicraft production, transportation and milking. Today, herds could comprise both collectively and privately owned animals, although this varies greatly from region to region. In Yamal, for instance, there has been an increasing trend in the share of privately owned reindeer during recent decades, while the opposite situation exists in Chukotka. Reindeer husbandry is typically administered by enterprises that date back to Soviet times, although family-based units are central to the internal organization of the livelihood. The number of people choosing reindeer husbandry as a livelihood is variable from region to region, as is private reindeer ownership within the collective herds.

26. Many of the reindeer herding peoples in the taiga region face serious challenge. For example, the Soyot of the Buryat Republic used reindeer for riding, transportation and hunting, like other peoples in the taiga zone. The 1930s, however, were a very challenging time for the Soyot. They were lumped together as a people with the Buryat, and their reindeer were collectivized. In the 1960s, reindeer husbandry was claimed to be unprofitable and was disbanded, and the Soyot lost all their reindeer. Currently, there would appear to be approximately 20 people left practising traditional reindeer husbandry, with perhaps 30 to 50 reindeer. As with the Tofalar and other peoples in taiga reindeer husbandry, it seems likely that the Soyot will completely lose their connection with reindeer, unless there is a sustained programme of support.

B. Mongolia

27. The Dukha/Tsataan are a nomadic peoples whose traditional migration patterns have been disrupted by border closures in the 1920s and who are present-day Mongolia's only reindeer herders. Currently, just over 200 Tsataan[18] live in the Mongolian taiga and their family-based herding system comprises herds of between 7 and 160 reindeer. The number of reindeer has been in flux over the past two decades and has fallen from over 2,000 in the late 1970s to approximately 700 in 2006. Reindeer are used for milk production, transportation and, more recently, their antlers are used for handicrafts. Meat production is not a significant part of Tsataan reindeer husbandry. The Tsataan move with their reindeer in the eastern Sayan mountains, which mark the border between Mongolia and Siberia, over an area of some 20,000 square kilometres at elevations of between 1,850 and 2,100 metres. The Tsataan people mark the southerly boundary of indigenous reindeer husbandry, and their animals are adapted to high (40°C) summer temperatures.

C. China

28. Evenki reindeer husbandry in China is limited to a small region in the north-eastern area of the country, between 50° and 53° north. There are currently 234 Evenki engaged in reindeer husbandry, among 20 families who herd approximately 1,000 reindeer. The reindeer herding Evenki are the surviving members of what had been a larger Evenki population of hunters who had moved freely across the Russian-Chinese border. After the Russian-Chinese border conflict in the 1960s, the migration over the borders was closed and the reindeer were collectivized in 1967. Their herding is consistent with other south-Siberian reindeer herding peoples: small numbers of clan-owned reindeer are milked and they are also used for transport. Soft antler production for the Asian pharmaceuticals market is the main cash crop, and efforts are under way to develop small-scale tourist activities in the clans closest to the largest city of the region, Genhe.[19]

[18] Sustainable reindeer husbandry project of the Sustainable Development Working Group, Arctic Council, Norway. See www.reindeer-husbandry.uit.no.

[19] The Association of World Reindeer Herders 5th Congress will be held in Genhe in 2013.

D. Alaska, the United States of America, the Northwest Territories, Canada and Greenland

29. Reindeer husbandry in Alaska has its roots in the purchase of 1,280 reindeer from the Russian Chukchi region as part of a plan of the Government of the United States of America to provide a source of economic development and meat for the indigenous inhabitants, the Inupiaq. In 1894, Saami herders were brought to the Seward peninsula, which brought increased commercialization and a large increase in numbers (over 600,000 by 1932). The depression, protectionism in the lower 48 States, confusion over ownership, predation and loss of reindeer and caribou saw a sharp decline in the ensuing decades. Saami involvement ended in this period. Currently, there are approximately 10,000 reindeer managed by 21 herders who are members of the Kawerak Reindeer Herders Association and who practice an extensive management style of herding.

30. The Government of Canada initiated the Reindeer Project in the 1920s, and by the mid-1930s, reindeer had been brought from Alaska to the Mackenzie Delta. Saami families from Norway were brought in to provide training on herding practices and to this day, Inuvialuit and Saami descendents of the Reindeer Project herd approximately 2,000 to 3,000 reindeer near Inuvik, locally owned and managed by the Kunnek Resource Development Corporation. In the 1950s, a similar venture was attempted in Greenland and small-scale reindeer herding continues to be practised in southern Greenland.

E. Finland, Norway, Sweden and the Russian Federation (Kola peninsula)

31. The traditional areas of Saami reindeer husbandry were divided between the borders of four nation States: Norway, Sweden, Finland and Russia (Kola peninsula) in the seventeenth, eighteenth and nineteenth centuries, the effect of which was to create a major disruption in traditional herding practices. Reindeer herding is still partly a cross-border activity,[20] especially in the border area between Sweden and Norway, which is based on the border treaty of 1751. An addendum to the border treaty, known as *Lappkodicillen*, proclaimed that the Saami should continue to be allowed to use the grazing areas on each side of the borders that they had customarily utilized.[21] In Finland, Norway and Sweden the reindeer herding framework is founded on customary law and reindeer herding legislation. Approximately 6,500 Saami work as reindeer herders in the Saami area. Reindeer husbandry in the Saami region is characterized by larger herds and a relatively high degree of mechanization in all regions. Reindeer are primarily used for meat production, though hides, bones and antlers are an important source of material for clothing and handicrafts. All animals in the Saami area, excluding the Russian

[20] These migrations over the border have since 1751 been regulated in different so-called reindeer grazing conventions (renbeteskonventioner) between Norway and Sweden. The most recent convention was negotiated in 1972 and was in force until 2005. Sweden and Norway are negotiating a new convention.

[21] *Lappkodicillen* proclaimed several other rights of the Saami people, declared that the States should respect the Saami people's customary laws, and referred to the Saami as a Saami nation. *Lappkodicillen* is thus a very important document to the Saami. It is sometimes referred to as the Magna Carta of the Saami.

Federation, are privately owned, although many aspects of herding are practised collectively.

32. Only the Saami may herd reindeer in Norway and Sweden, in traditional Saami territory. Reindeer herding is also practised in southern Norway and the Torne valley, which marks the border between Sweden and Finland in special "concession areas", where Norwegians and Swedes can also herd reindeer. In Finland, reindeer husbandry is not ethnically restricted to the Saami, and the livelihood is open to any individual from a member country of the European Union. On the Russian side, reindeer husbandry is practised primarily by the Komi people. Saami make up the rest, with some Russians and Ukrainians also herding. The reindeer husbandry area covers 40 per cent of the entire surface area of Finland, Norway and Sweden, and the number of reindeer is over 700,000.

V. Initiatives

A. Association of World Reindeer Herders

33. Since the establishment of the Association of World Reindeer Herders in 1997, questions related to the loss of grazing land and climate change have been matters of priority on the Association's agenda. On the occasion of the adoption of the Kautokeino Declaration[22] by the 4th World Reindeer Herders' Congress, held in Kautokeino, Norway, from 30 March to 3 April 2009, the world's reindeer herders shared the concerns of the Standing Committee of Parliamentarians of the Arctic Region that climate change was a matter of urgency, that it already had a strong impact on the living conditions of Arctic indigenous peoples, that there might be an explosion in human activity in the Arctic as a result of climate change and that there was a need to find ways to regulate that activity and to keep ahead of the development. This had also been expressed by the Chair of the Standing Committee of Parliamentarians of the Arctic Region, Hill-Marta Solberg, in her speech at the 5th Arctic Council Ministerial Meeting, held in Salekhard, Russian Federation, on 26 October 2006.[23] Moreover, the Kautokeino Declaration also expressed the concern that the situation regarding the loss of grazing land had become worse since the 3rd World Reindeer Herders' Congress, held in Yakutsk, Russian Federation, in 2005, and supported the establishment of an international committee to investigate reindeer herders' loss of grazing land and to develop a mechanism to involve the United Nations in the work to support sustainable reindeer husbandry. Another initiative linked to the Association of World Reindeer Herders is the UNEP project on impacts of land-use change and climate change on nomadic herders, endorsed under UNEP work on ecosystem-based adaptation. This initiative will assess the impacts of land-use change and climate change on nomadic pastoralists and their adaptation options and opportunities, focusing on taiga reindeer herding in the Russian Federation, Mongolia and China, and yak herding in the Himalayas. The project is a collaborative effort between the Association of World Reindeer Herders,

[22] Available from http://archive.arcticportal.org/530/01/Kautokeino_Declaration_2009_ENGLISH.pdf.

[23] Available from http://arctic-council.npolar.no/Meetings/Ministerial/2006/Speech_Solberg_Salekhard.pdf.

the International Centre for Reindeer Husbandry, and the UNEP Global Resources Information Database Office in Arendal (GRID-Arendal), among other entities.

B. Arctic Council

34. In the Arctic Council framework, the major future challenges for reindeer herding and the reindeer industry have been analysed in two reports from the Arctic Council, *Sustainable Reindeer Husbandry*[24] *and Family-based Reindeer Herding and Hunting Economies, and the Status and Management of Wild Reindeer/Caribou populations* (2004). There is also an ongoing Arctic Council project entitled "EALÁT-information: reindeer herding, traditional knowledge and adaptation to climate change and loss of pastures" (see below). The 6th ministerial meeting of the Arctic Council, held in Tromsø, Norway, on 29 April 2009, acknowledged that indigenous peoples in the Arctic were taking a leading role in using the best available traditional and scientific knowledge to help to understand and adapt to challenges related to climate change and other challenges in their societies, and welcomed initiatives to build the capacity of indigenous peoples.[25]

C. International Polar Year Reindeer Herders Vulnerability Network Study: EALÁT

35. As a follow-up to the 2005 Arctic Climate Impact Assessment,[26] the International Polar Year initiative was undertaken by EALÁT (Reindeer Herders Vulnerability Network Study), which focused on understanding the adaptive capacity of reindeer pastoralism to climate variability and change. The EALÁT study was initiated by the Association of World Reindeer Herders, and is being co-managed by a former Chairman of the Permanent Forum, Ole Henrik Magga, at Sámi University College,[27] along with Svein D. Mathiesen and Executive Director, Anders Oskal, at the International Centre for Reindeer Husbandry.[28] The coordinating institution for research in EALÁT is Sámi University College, while the information, outreach and Arctic Council components of EALÁT are operated by the International Centre for Reindeer Husbandry, in close cooperation with the Association of World Reindeer Herders. The International Centre for Reindeer Husbandry was established by the Government of Norway in 2005 to maintain and develop sustainable reindeer husbandry in the circumpolar North, to strengthen the cooperation between indigenous herding communities and peoples, to disseminate information about reindeer husbandry and to document reindeer herders' traditional knowledge. The International Centre for Reindeer Husbandry is a member of the University of the Arctic.[29] A large number of other knowledge, research and educational institutions are also involved in the project, including indigenous

[24] Johnny Leo L. Jernsletten and Konstantin Klokov, *Sustainable Reindeer Industry* (Tromsø, Norway, Centre for Saami Studies, 2002).

[25] See http://arctic-council.org/filearchive/Tromsoe%20Declaration-1.pdf. Accessed on 20 January 2010.

[26] Available from http://www.amap.no/acia. Accessed on 20 January 2010.

[27] See www.samiskhs.no. Accessed on 20 January 2010.

[28] See www.reindeercentre.org. Accessed on 20 January 2010.

[29] See www.uarctic.org. Accessed on 20 January 2010.

non-governmental organizations, such as the Saami Council and the Russian Association of Indigenous Peoples of the North (RAIPON).

D. Case study[30]

36. A case study concerning reindeer herding and the effect of climate change was conducted in the Saami areas in Finland in the beginning of the new millennium. The case study indicated that the weather was changing and that there was rain during the winter and other extreme weather events. Weather fluctuations, in particular rain and mild weather during the winter, often prevented reindeer from accessing lichen, which was vital for their survival. In some years, this had caused a massive loss of reindeer. The study provided information about unusual rain during the winter that encapsulated the ground in ice beneath the snow, preventing animals from reaching sources of food. This had forced many Saami communities to feed the reindeer with hay and fodder, whenever the lichen became trapped under ice, as a result of winter rain. In some instances, this seriously affected the possibility to travel on the snow and ice, and the thinner ice made it more dangerous to cross rivers and lakes. There are reports that certain birds, especially ground birds, have disappeared. Many Saami used to hunt birds while herding reindeer, which is not an option any longer in many areas. Some Saami elders state that traditional weather-reading skills cannot be trusted anymore due to the effects of climate change. The Saami normally combine various natural resource-based economic activities, including reindeer herding, fishing, hunting, trapping and berry picking.

E. Integrated climate and energy policy

37. In the past 50 years, around 25 per cent of the reindeer pastures of the Euro-Arctic Barents region have in effect been lost as a result of human development.[31] This challenge is also particularly relevant today, as the Arctic is said to hold around 25 per cent of the world's remaining undeveloped petroleum resources, large deposits of minerals and unexploited forest. After the fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change,[32] held in Copenhagen in December 2009, it is expected that efforts to mitigate climate change by increased use of renewable resources, such as windmills and hydroelectric dams, will intensify pressure on grazing lands. In the north of Sweden, a Swedish/German joint venture is planning the construction of a windmill park within the reindeer grazing lands of the Östra Kikkejaure Saami community. This is the biggest windmill park planned to date, and the Government of Sweden will soon give the go-ahead to the project. The project will have a mainly negative effect on reindeer husbandry in the concerned Saami community.

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[30] This case study comes from a project carried out as part of the Snow Change programme organized by the Environmental Engineering Department at Tampere Polytechnical in Finland.

[31] N. J. C. Tyler et. al., "Saami reindeer pastoralism under climate change: applying a generalized framework for vulnerability studies to a sub-arctic social-ecological system", *Global Environmental Change*, Vol. 17, Issue 2 (May 2007).

[32] Copenhagen Accord of 18 December 2009. Decision -/CP.15.

38. The final report from the Swedish Commission on Climate and Vulnerability[33] concludes that the conditions for reindeer herding in Sweden will be significantly affected by climate change. The report points to factors that would likely be relevant to other reindeer herding regions as well. The vegetation period will be prolonged, and plant production during summer grazing will increase. Insect harassment may be exacerbated. Areas of bare mountain are expected to decrease in extent, and pressure on coastal winter grazing may increase as snow conditions become more difficult inland and in the mountains, which may lead to more conflicts of interest with other sectors of industry. The most serious consequence will be a threat to Saami culture if conditions for reindeer herding worsen.

39. The Swedish Commission on Climate and Vulnerability points to two positive effects of climate change: plant production, when there is no snow on the ground (summer grazing), can increase by 20-40 per cent; and the growing season can be extended by about a month. The lengthening of the time with no snow on the ground and shorter winters are positive effects for reindeer. Also, snow-free grazing is more nutritious than winter grazing.

40. The Swedish Commission also foresees that forestry is probably the industry that most affects the conditions for conducting reindeer husbandry. In a future climate, the opportunities for conducting forestry will probably move northward and higher into the mountains, while forest growth will also increase throughout the reindeer herding region. This ought to promote more intensive forestry and a desire to expand forestry into areas where it is currently not possible to carry out such operations. At the same time, climate change may encourage an increased concentration of reindeer in certain areas, particularly near to the coast, during difficult grazing years. As a result, there will be an increased risk of conflicts of interest between forestry and reindeer herding.

41. The Swedish Commission also predicts a risk of conflict regarding land use between reindeer herding infrastructure, mining, wind power, space operations and military exercises. A warmer climate that favours agriculture in northern Sweden may also become a source of increased land usage conflicts.

42. There is a need to investigate how reindeer herding and conditions for the Saami will be affected by climate change. The development of further analysis on methods and modelling of grazing biotopes is required in order better to estimate future access to pasture in summer and winter. This is an example of further research that could facilitate reindeer herding in a changed climate.

43. The Swedish Commission suggests, among other measures and proposals, the following:

- The Swedish Forest Agency should be commissioned, in consultation with the Saami Parliament, to propose further measures, including changes to current regulations, to ensure that forestry shows greater consideration in the reindeer husbandry area, as well as to identify essential areas for winter grazing, where, for example, considerate land preparation should be undertaken.
- The Swedish Environmental Protection Agency, the National Board of Housing, Building and Planning, and the Saami Parliament should be

[33] *Sweden Facing Climate Change: Threats and Opportunities, Final report from the Swedish Commission on Climate and Vulnerability* (Stockholm, Edita Svesige AB, 2007).

commissioned to propose how the effects of climate change on reindeer herding can be taken into account in environmental impact assessments and strategic environmental assessments.

44. The Swedish Government bill on an integrated climate and energy policy (bill 2008/09:162), based on the Swedish Commission on Climate and Vulnerability study, was adopted by the Swedish Parliament in 2009. The Saami Parliament[34] will receive during 2010 about $4.1 million under a three-year period in order to meet the changed conditions for the reindeer industry caused by climate change. The Saami Parliament is involved in close cooperation with the EALÁT project concerning matters related to reindeer herding and climate change.

VI. Concluding observations

45. Reindeer herding communities around the world have throughout history managed to adapt to dramatic changes, such as the process of colonization, the introduction of Christianity, the inclusion of traditional pastoral territories in different nation States, industrialization, Communism, the market economy and modernization.[5] Globalization has also introduced a new reality for many reindeer herding communities. The cumulative effects of land fragmentation, natural resource exploitation, dwindling access to land (and rights), together with the multiple effects of climate change on ecosystems in the Arctic, have put hard pressure on the reindeer herding communities in the world. The mainstream approach to solve "the problem" is to look for ways to stop these symptoms from becoming even worse. If solutions are to be found, it is important to start looking at causes for climate change such as: energy consumption, globalization, landscape fragmentation, exploitation of natural resources, unlimited economic growth, questions of consumption and life style.

46. The situation of reindeer herding communities is complex and due to limitations of the framework of the present study, further studies should be undertaken, and strategies and programmes should be developed and implemented, based on the principles in the United Nations Declaration on the Rights of Indigenous Peoples. A recent development in the Russian Federation gives an example of the complexity. According to a new federal land code entering into force as of 1 January 2010, reindeer herders and their communities have to buy or rent their traditional grazing lands. The Kautokeino Declaration[23] adopted by the 4th World Reindeer Herders' Congress held in Kautokeino, Norway, in 2009 expresses explicitly the need for a federal law in the Russian Federation on reindeer husbandry, addressing reindeer herding rights, the protection of pastures and the ownership of reindeer. The reindeer husbandry legislation in the Scandinavian countries is an example of such legislation.

47. In the scientific community, the impact of climate change adaptation and mitigation measures on reindeer herding has been a major discourse since the end of the 1990s. The matter was brought up on the agenda in regional and international forums and organizations at the beginning of the new millennium. On the national level, very few Governments have addressed the matter. Questions addressing

[34] See the Saami Parliament's "Living environment programme (*Eallinbiras*). Available from http://www.oloft.com/eallinbiras.pdf.

reindeer pastoralist vulnerability, adaptation to climate change, mitigation strategies and understanding of the concept of resilience need to be both more explored and made more operative by the scientific community, United Nations agencies, regional organizations and concerned Governments. This must be done in partnership with concerned indigenous reindeer herders and with the necessary resources allocated in accordance with the United Nations Declaration on the Rights of Indigenous Peoples.

Vulnerability[35]

48. In terms of a framework to assess the degree to which reindeer pastoralists are likely to experience harm as a result of exposure to multiple and interacting forces of change, future studies should include questions like:

- How can the vulnerability of Arctic human ecological systems to societal natural perturbations be effectively characterised?
- Which perturbations (at local, regional and/or global scales) pose the greatest risks?
- How do reindeer pastoralists respond to perturbations in the societal and the natural environments?
- What determines adaptive capacity and how can it be quantified?
- What impacts result when ability to adapt to perturbations is constrained?
- What mitigation and adaptive strategies at local, regional and global scales reduce unfavourable impacts and how might promising strategies be facilitated?
- How do different reindeer herding communities assess risks associated with different vulnerabilities?
- How can herders' traditional knowledge be used to identify, develop and implement local strategies?

Adaptation[36]

49. The potential impact of climate variation and change on the productivity of herds can be ameliorated by tactical and strategic changes in herding practice. Herders' responses (feedback) represent coping at both individual and institutional levels. The model proposes that responses may be triggered at two levels. Ultimately, the herders respond to climate-induced changes in the performance of their animals. They also respond directly to the kinds of weather conditions that they recognize as important for successful herding. The model makes no assumptions about the extent or effectiveness of herders' ability to cope or about the magnitude of the influence of climate change on the system. This means we need to learn about our past, contemporary adaptive capacity, understand the institutional and legal barriers as well as the governance of adaptation.

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[35] Based on *State of the World's Indigenous Peoples* (United Nations Publication, Sales No. 09.VI.13).

[36] Based on United Nations Development Group, *Guidelines on Indigenous Peoples' Issues* (Geneva 2009). Available from http://www.un.org/esa/socdev/unpfii/documents/UNDG_guidelines_EN.pdf. Accessed on 20 January 2010.

Resilience[37]

50. Resilience refers often to the capacity to lead a continued existence by incorporating changes. Resilience (both social and ecological) is a crucial aspect of the sustainability of local livelihoods and resource utilization, and we need a better understanding of how societies build adaptive capacity in the face of climate change. In scientific discourse, it is argued that in coupled social-ecological systems, resilience is embedded in four key factors: learning to live with change and uncertainty; nurturing diversity for reorganization and renewal; combining different types of knowledge for learning; and opportunities for self-organization. Of these, the first three factors are directly relevant for investigating resilience embedded in the social organization of reindeer pastoralism. The fourth factor, opportunities for self-organization, refers to the need for central management systems to allow coupled social-ecological systems the freedom to self-organize. This is thus a factor that is not in the direct control of pastoralists, but depends on the actions of governmental authorities. Resilience studies of coupled social-ecological systems such as reindeer herding require recognition of the inseparability of the social and natural spheres. Resilience of coupled social-ecological systems operating in a natural setting, where change and not stability is the norm, requires, therefore, the ability to cope with and adapt to changes without degrading options for future adaptability. The opportunity to self-organize will, thus, be studied through investigating the impacts of institutional constraints and opportunities.

51. The extent of vulnerability and resilience to climate change depends not only on cultural aspects and ecosystem diversity but also on the political, legal and institutional rules that govern social-economic systems and social-ecological systems. Therefore, since adaptation to climate change is something that takes place on the local level, it is important that indigenous peoples and local societies themselves define the risks related to rapid change. Reindeer herding peoples have to prepare themselves, their society and management authorities for change and reduce their vulnerability to the effects of climatic change. Building competence locally and planning for warming in local Arctic societies must therefore be priorities for Arctic national States and indigenous peoples' institutions and organizations.

52. The adaptation to climate change demands training of local, regional and national Arctic leadership in long-term sustainable thinking, and developing mitigation strategies[38] based on the best available adaptation knowledge, as well as scientific and experience-based traditional and local knowledge. The national adaptation strategies must recognize indigenous pastoral peoples' traditional knowledge and cultural and linguistics rights based on a human rights approach.

53. There is a need to find ways to regulate human activity in the Arctic.[23] Natural resource development, transport and tourism represent some of the drivers in that development. Against this background, there is a need to develop and implement integrated management plans for reindeer pastures in the Arctic, on national levels,

[37] See Carl Folke, "Resilience: the emergence of a perspective for social-ecological systems analyses", *Global Environmental Change*, vol. 16 (August 2006).

[38] See *Making Protected Areas Relevant: A Guide to Integrating Protected Areas Into Wider Landscapes, Seascapes and Sectoral Plans and Strategies*, CBD Technical Series No. 44 (Montreal, Canada, Secretariat of the Convention on Biological Diversity, 2010).

to secure future sustainability of indigenous herding communities and cultures in the face of climate change and land use change in the Arctic region.

54. There is an urgent need to facilitate investigation and studies within the United Nations framework on changes in grazing land in the reindeer herding areas in the circumpolar North and to establish a holistic and integrated understanding of the ongoing rapid changes in reindeer herding communities, driven partly by climate change and globalization, in order to maintain the sustainability and resilience of indigenous reindeer herding societies and cultures in the future.